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APPLICATION NO. FIRST NAMED INVENTOR FILING DATE ATTORNEY DOCKET NO. CONFIRMATION NO. 09/888,699 06/24/2001 Elias Bergan CH920000036US1(590.060) 8705 35195 12/12/2003 EXAMINER 7590 **FERENCE & ASSOCIATES** BELL, MELTIN **400 BROAD STREET** ART UNIT PAPER NUMBER PITTSBURGH, PA 15143 2121 DATE MAILED: 12/12/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

	Application No.	Applicant(s)
Office Action Summary	09/888,699	BERGAN ET AL.
	Examiner	Art Unit
	Meltin Bell	2121
Th MAILING DATE of this communication Period for Reply	on appears on the cover sheet	with th correspondence address
A SHORTENED STATUTORY PERIOD FOR ITHE MAILING DATE OF THIS COMMUNICAT - Extensions of time may be available under the provisions of 37 after SIX (6) MONTHS from the mailing date of this communication of the period for reply specified above is less than thirty (30) day of the period for reply is specified above, the maximum statutory and the second of the period for reply will, because of the second of the period for reply will, because of the period for reply will be period for	TON. CFR 1.136(a). In no event, however, may tion. s, a reply within the statutory minimum of the period will apply and will expire SIX (6) May statute, cause the application to become	a reply be timely filed thirty (30) days will be considered timely. ONTHS from the mailing date of this communication. ABANDONED (35 U.S.C. § 133).
1) Responsive to communication(s) filed or	n <u>24 June 2001</u> .	
2a)☐ This action is FINAL . 2b)⊠	This action is non-final.	
3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under Ex parte Quayle, 1935 C.D. 11, 453 O.G. 213.		
Disposition of Claims		
4) Claim(s) 1-36 is/are pending in the appli	cation.	
4a) Of the above claim(s) is/are withdrawn from consideration.		
5) Claim(s) is/are allowed.		
6)⊠ Claim(s) <u>1-36</u> is/are rejected.		
7) Claim(s) is/are objected to.		
8) Claim(s) are subject to restriction	and/or election requirement.	
Application Papers		
9)⊠ The specification is objected to by the Ex		
10)⊠ The drawing(s) filed on <u>24 June 2001</u> is/are: a) \square accepted or b)⊠ objected to by the Examiner.		
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).		
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).		
11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.		
Priority under 35 U.S.C. §§ 119 and 120		
12) Acknowledgment is made of a claim for a) All b) Some * c) None of: 1. Certified copies of the priority doce 2. Certified copies of the priority doce 3. Copies of the certified copies of the application from the International I * See the attached detailed Office action for 13) Acknowledgment is made of a claim for doce since a specific reference was included in 37 CFR 1.78. a) ☐ The translation of the foreign languated the Acknowledgment is made of a claim for doce the complex of the series of	uments have been received. uments have been received in the priority documents have been Bureau (PCT Rule 17.2(a)). The a list of the certified copies in the first sentence of the specion ge provisional application has tomestic priority under 35 U.S.	n Application No en received in this National Stage ot received. C. § 119(e) (to a provisional application) fication or in an Application Data Sheet. s been received. C. §§ 120 and/or 121 since a specific
reference was included in the first sentence	e of the specification or in an	Application Data Sheet. 37 CFR 1.78.
Attachment(s)		
Notice of References Cited (PTO-892) Notice of Draftsperson's Patent Drawing Review (PTO-93) Information Disclosure Statement(s) (PTO-1449) Paper	948) 5) Notice of	w Summary (PTO-413) Paper No(s) of Informal Patent Application (PTO-152)

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DETAILED ACTION

This action is responsive to application **09/888,699** filed 6/24/01.

Claims 1-36 have been examined.

Priority

Applicant is advised of possible benefits under 35 U.S.C. 119(a)-(d), wherein an application for patent filed in the United States may be entitled to the benefit of the filing date of a prior application filed in a foreign country.

Acknowledgment is made of applicant's claim for foreign priority based on application 00113438.6 filed in Europe on **6/24/00**. It is noted, however, that differences between the instant application and the European application exist

- the shading of item 43.2 in Fig. 4F
- instant application page 7, line 11 through page 9, line 18 vs. European application page 5, line 21-25
- instant application page 49, line 7 through page 9, line 18 vs. European application page 30, line 18

Information Disclosure Statement

Applicant is respectfully reminded of the ongoing Duty to disclose 37 C.F.R. 1.56 all pertinent information and material pertaining to the patentability of applicant's claimed

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invention, by submitting in a timely manner PTO-1449, Information Disclosure Statement (IDS) with the filing of applicant's application or thereafter.

This information and material includes the following documents given in the specification:

- "Enabling agents to work together" cited beginning on page 2, line 17
- "Transparente Trivialitaten; Cyc-Wissensbasis in WWW" cited beginning on page 3, line 1
- PCT Patent application WO 99/63455, International Application No.
 PCT/IB99/00231 cited beginning on page 3, line 14
- German Patent application 199008204.9 cited beginning on page 3, line 18
- The work of B. Mandelbrot and K. Wilson referred to on page 14, line 17
 Submission of an IDS listing at least the above documents is required and may include copies of the documents with English translations as appropriate.

Drawings

The United States Patent and Trademark Office of Draftperson's Patent Drawings Review have reviewed the formal drawings.

The drawings have not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is required in correcting any errors of which applicant may become aware in the drawings.

The drawings are objected to because:

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 Item 42.1 is a pointer and a square in Fig. 4F when a different item numbering convention might lessen misunderstanding

 Items 47.x in Fig. 4C are pointers that don't have at least one direction of termination

A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Specification

The specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is required in correcting any errors of which applicant may become aware in the specification.

The disclosure is objected to because of the following informalities:

- Items should be more closely identified with Figures starting on page 11, line 7
 (e.g. Figures 1 and 4A show objects 50.x and 51.x...)
- Page 18, line 5 identified topology table 32.2 in Fig. 3B when it is labeled 32.3
- Page 20, line 15 gives connection units 104 when Fig. 2A shows connection object (Relation) 104
- The meaning of non-scaling scaling on page 21, line 4 is unclear
- Knowledge base 18 on page 22, line 9 should be given as knowledge base 11

 Page 21 lines 7-8 uses controller units for similarity relation, interaction units for functional relation, description of units for attribute connection, role units for role connection and controller units for Janus connection

- The rationale for excluding item 40.6 from page 28, line 8 should be given
- Scaling connections 105 should be hierarchical connections 105
- The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed. The following title is suggested: Natural Language Processing Methods and Systems

Appropriate correction is required.

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 1-36 are rejected under 35 U.S.C. 101 because the disclosed invention is inoperative and therefore lacks utility. Claims 1-36 are not claimed to be practiced on a computer nor are they stored in a computer readable medium.

As systems, claims 29 and 33-36 are not in the technological arts because they can be realized on paper with pen or pencil, in a printed manual, etc.

As methods, claims 1-24 offer abstract ideas (e.g. "network", "objects", "pointers", "units", "modules", "element", "connection") that are also not applied in the technological arts. Abstract ideas and their manipulation constitute "descriptive material" that is not

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patentable, *Warmerdam*, 33 F.3d at 1360, 31 USPQ2d at 1759 and *Schrader*, 22 F.3d at 292-93, 30 USPQ2d at 1457-58, respectively. If the abstract ideas of claims 10-14 represented functional descriptive material consisting of data structures and computer programs which impart functionality when employed as a computer component (recorded on some computer readable medium), they become structurally and functionally interrelated to the medium and will be statutory in most cases since use of technology permits the function of the descriptive material to be realized. For examples,

- In re Lowry, 32 F.3d 1579, 1583-84, 32 USPQ2d 1031, 1035 (Fed. Cir. 1994) offers claim to data structure stored on a computer readable medium that increases computer efficiency held statutory and
- Warmerdam, 33 F.3d at 1360-61, 31 USPQ2d at 1759 offers product-byprocess claim to computer having a specific data structure stored in memory also held statutory while
- Warmerdam, 33 F.3d at 1361, 31 USPQ2d at 1760 offers claim to a data structure per se held nonstatutory.

As software modules, claims 25-28 and 30-32 are not patentable for the same reasons as methods given above: offering abstract ideas (e.g. "network", "objects", "pointers", etc.) that are not applied in the technological arts.

Because the claims are not claimed to be practiced on a computer and/or stored on a computer readable medium, they are not limited to practical applications in the technological arts. Specifically, the claims are systems, methods and software modules without any particular practical application, such as a program running on a computer

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and stored in a computer readable medium or memory. On that basis alone, those claims are clearly nonstatutory.

Claims 1-36 are rejected under 35 U.S.C. 101 because the claimed invention is not supported by either a credible asserted utility or a well established utility. Claims 1-36 are also rejected under 35 U.S.C. 112, first paragraph. Specifically, since the claimed invention is not supported by either a credible asserted utility or a well established utility for the reasons set forth above, one skilled in the art clearly would not know how to use the claimed invention.

Claim Rejections - 35 USC § 112

To expedite a complete examination of the instant application, the claims rejected under 35 U.S.C. 101 (nonstatutory) above are further rejected as set forth below in anticipation of applicant amending these claims to place them within the four statutory categories of invention.

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 1-36 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

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Support for this 35 U.S.C. 112, first paragraph rejections comes from MPEP

2164.07(I)(A):

"As noted in *In re Fouche*, 439 F.2d 1237, 169 USPQ 429 (CCPA 1971), if "compositions are in fact useless, appellant's specification cannot have taught how to use them." 439 F.2d at 1243, 169 USPQ at 434. The examiner should make both rejections (i.e., a rejection under 35 U.S.C. 112, first paragraph and a rejection under 35 U.S.C. 101) where the subject matter of a claim has been shown to be nonuseful or inoperative.

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The 35 U.S.C. 112, first paragraph, rejection should indicate that because the invention as claimed does not have utility, a person skilled in the art would not be able to use the invention as claimed, and as such, the claim is defective under 35 U.S.C. 112, first paragraph."

Claim Rejections - 35 USC § 102

To expedite a complete examination of the instant application, the claims rejected under 35 U.S.C. 101 (nonstatutory) above are further rejected as set forth below in anticipation of applicant amending these claims to place them within the four statutory categories of invention.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

Claims 1-5, 7-15 and 20-36 are rejected under 35 U.S.C. 102(b) as being anticipated by *Ausborn* U.S. Patent Number 5,056,021 (October 8, 1991).

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Regarding claim 1:

Ausborn teaches,

- a. finding a counterpart element for an object or a pointer by looking for a semantic

unit that is related to the object or the pointer (column 3, lines 21-26, "A thesaurus

is...for the idea"; column 5, lines 35-41, "Roget's system supplies...our natural

language")

- b. establishing a classification connection between the object or the pointer and its

counterpart element (column 3, lines 43-57, "The present invention... to determine

synonyms")

- c. assigning the module that is associated with the counterpart element, if any, to the

object or the pointer (column 4, lines 19-23, "the first level...LAND; and PLAIN")

- d. determining the neighborhood of the object or the pointer in the input network and

the neighborhood of the counterpart element in the knowledge network, and comparing

the neighborhoods to verify the classification connection (column 4, lines 38-55, "The

inventor has determined...level of abstraction")

Regarding claim 2:

Ausborn further teaches,

- e. logically segmenting the input network by having another module explore the

neighborhoods of semantic units to find an upward neighbor semantic unit or segment

on a higher scale in the knowledge network, and by adding a corresponding segment

unit to the input network (column 3, lines 27-42, "The inherent organization...by the

phrase"; column 10, lines 59-61, "A rule is... concept induction system")

Regarding claim 3:

Ausborn further teaches,

- a classification connection is established between the segment unit and the semantic unit or segment which is on a higher scale in the knowledge network (column 2, lines 30-44, "a database is...into these categories")

Regarding claim 4:

Ausborn further teaches,

- steps a) through d) are repeated iteratively until a classification connection is found for some or all of the objects and/or pointers (FIG. 3; column 6, lines 32-60, "At step 300... in each pass")

Regarding claim 5:

Ausborn further teaches,

- steps a) through e) are repeated iteratively until classification connections are found for some or all of the objects and/or pointers of the input network and some or all of the objects and/or pointers of the input network are segmented on higher levels of hierarchy (FIG. 3; column 6, lines 32-60, "At step 300...in each pass")

Regarding claim 7:

Rejection of claim 1.d is incorporated. Therefore, claim 7 is rejected under the same rationale as claim 1.d.

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Regarding claim 8:

Ausborn further teaches,

- more than one module can be associated with a semantic unit, or can be assigned to

an object or pointer (column 13, lines 41-47, "A careful examination...hyperbolic and

reciprocal")

Regarding claim 9:

Rejection of claim 1.c is incorporated. Therefore, claim 9 is rejected under the same

rationale as claim 1.c.

Regarding claim 10:

Ausborn further teaches,

- the root semantic unit is considered to be a counterpart element for an object for which

no counterpart element is found in step a (column 12, lines 40-45, "Referring to the ... is

not obtained")

Regarding claim 11:

Ausborn further teaches,

- a search algorithm is employed in step a) for finding a counterpart element (column 5,

lines 57-68, "The present invention...level of abstraction"; column 6, lines 1-4, "are then

examined...in the phrase")

Regarding claim 12:

Rejection of claim 11 is incorporated. Therefore, claim 12 is rejected under the same

rationale as claim 11.

Regarding claim 13:

Rejection of claim 1.a is incorporated. Therefore, claim 13 is rejected under the same rationale as claim 1.a.

Regarding claim 14:

Ausborn further teaches,

- the module is a software object (column 9, lines 45-62, "The wordmap program...for organizing information")

Regarding claim 15:

Ausborn further teaches,

- in step c) the module is assigned to the object or pointer by copying or cloning the software object (column 10, lines 21-23, "The example provided... specifying software structures"; column 10, lines 58-67, "A rule will...in Level III")

Regarding claim 20:

Ausborn further teaches,

- the module after having been assigned to an object or pointer still remembers to which semantic unit it was associated (column 10, lines 21-23, "The example provided ... specifying software structures"; column 10, lines 58-67, "A rule will... in Level III")

Regarding claim 21:

Rejection of claims 1 and 2 are incorporated. Therefore, claim 21 is rejected under the same rationale as claims 1 and 2.

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Regarding claim 22:

Rejection of claim 1 is incorporated. Therefore, claim 22 is rejected under the same rationale as claim 1.

Regarding claim 23:

Rejection of claim 1 is incorporated. Therefore, claim 23 is rejected under the same rationale as claim 1.

Regarding claim 24:

Rejection of claim 1 is incorporated. Therefore, claim 24 is rejected under the same rationale as claim 1.

Regarding claim 25:

Rejection of claim 1 is incorporated. Therefore, claim 25 is rejected under the same rationale as claim 1.

Regarding claim 26:

Rejection of claim 25 is incorporated. Therefore, claim 26 is rejected under the same rationale as claim 25.

Regarding claim 27:

Rejection of claim 25 is incorporated. Therefore, claim 27 is rejected under the same rationale as claim 25.

Regarding claim 28:

Ausborn further teaches,

- a Classification Janus (FIG.2, item 202)

Regarding claim 29:

Ausborn further teaches,

- a plurality of software modules (FIGS. 2-4 and 6)

Regarding claim 30:

Ausborn further teaches,

- looking for semantic units in a fractal semantic knowledge database which belong to a counterpart segment on a higher level of hierarchy (column 3, lines 27-42, "The inherent organization... by the phrase")

- creating a new segment unit in the input network (column 10, lines 59-61, "A rule is... concept induction system")

- creating a classification connection from the new segment unit to the counterpart segment (column 10, lines 66-67, "The rule being...in Level III")

Regarding claim 31:

Rejection of claim 30 is incorporated. Therefore, claim 31 is rejected under the same rationale as claim 30.

Regarding claim 32:

Ausborn further teaches,

- a Segmentation Janus (FIGS. 3-4, items 402 and 304)

Regarding claim 33:

Ausborn further teaches,

- a plurality of software modules (FIGS. 2-4 and 6)

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Regarding claim 34:

Rejection of claim 1 is incorporated. Therefore, claim 34 is rejected under the same

rationale as claim 1.

Regarding claim 35:

Rejection of claim 34 is incorporated and further claim contains limitation(s) recited in

claim 2. Therefore, claim 35 is rejected under the same rationale as claim 2.

Regarding claim 36:

Ausborn further teaches,

- some or all of the modules are software objects (column 6, lines 5-9, "The wordmap

program...the wordmap program")

Claim Rejections - 35 USC § 103

To expedite a complete examination of the instant application, the claims rejected under

35 U.S.C. 101 (nonstatutory) above are further rejected as set forth below in anticipation

of applicant amending these claims to place them within the four statutory categories of

invention.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains.

Patentability shall not be negatived by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the Office presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the Office to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claim 6 and 16-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over *Ausborn* U.S. Patent Number 5,056,021 (October 8, 1991) in view of

- In re Dulberg, 289 F.2d 522, 523, 129 USPQ 348, 349 (CCPA 1961)
- In re Venner, 262 F.2D 91, 95, 120 USPQ 192, 194 (CCPA 1958)

and further in view of

In re Harza, 274 F.2D 669, 671, 124 USPQ 378, 380 (CCPA 1960).

Regarding claim 6:

Ausborn teaches,

- a. finding a counterpart element for an object or a pointer by looking for a semantic unit that is related to the object or the pointer (column 3, lines 21-26, "A thesaurus is...for the idea"; column 5, lines 35-41, "Roget's system supplies...our natural language")

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- b. establishing a classification connection between the object or the pointer and its counterpart element (column 3, lines 43-57, "The present invention... to determine synonyms")

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- c. assigning the module that is associated with the counterpart element, if any, to the object or the pointer (column 4, lines 19-23, "the first level...LAND; and PLAIN")
- d. determining the neighborhood of the object or the pointer in the input network and the neighborhood of the counterpart element in the knowledge network, and comparing the neighborhoods to verify the classification connection (column 4, lines 38-55, "The inventor has determined...level of abstraction")
- e. logically segmenting the input network by having another module explore the neighborhoods of semantic units to find an upward neighbor semantic unit or segment on a higher scale in the knowledge network, and by adding a corresponding segment unit to the input network (column 3, lines 27-42, "The inherent organization... by the phrase"; column 10, lines 59-61, "A rule is... concept induction system")

 Ausborn, however, does not expressly disclose that the modules are capable of operating independently and concurrently.

Motivation - It would have been obvious at the time the invention was made to one of ordinary skill in the art to choose a design where the modules are capable of operating independently and concurrently since it has been held that

making operations separable or independent is obvious [In re Dulberg, 289 F.2d
 522, 523, 129 USPQ 348, 349 (CCPA 1961)]

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 making operations concurrent thereby duplicating them for multiple effect is also obvious [In re Harza, 274 F.2D 669, 671, 124 USPQ 378, 380 (CCPA 1960)].

Regarding claim 16:

Ausborn teaches,

- a. finding a counterpart element for an object or a pointer by looking for a semantic unit that is related to the object or the pointer (column 3, lines 21-26, "A thesaurus is...for the idea"; column 5, lines 35-41, "Roget's system supplies...our natural language")
- b. establishing a classification connection between the object or the pointer and its counterpart element (column 3, lines 43-57, "The present invention... to determine synonyms")
- c. assigning the module that is associated with the counterpart element, if any, to the object or the pointer (column 4, lines 19-23, "the first level...LAND; and PLAIN")
- d. determining the neighborhood of the object or the pointer in the input network and the neighborhood of the counterpart element in the knowledge network, and comparing the neighborhoods to verify the classification connection (column 4, lines 38-55, "The inventor has determined...level of abstraction")
- e. logically segmenting the input network by having another module explore the neighborhoods of semantic units to find an upward neighbor semantic unit or segment on a higher scale in the knowledge network, and by adding a corresponding segment unit to the input network (column 3, lines 27-42, "The inherent organization... by the phrase"; column 10, lines 59-61, "A rule is... concept induction system")

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Ausborn, however, does not expressly disclose that the modules can be individually triggered to initiate any of the steps b, c, d, or e.

Motivation - It would have been obvious at the time the invention was made to one of ordinary skill in the art to choose a design where the modules can be individually triggered to initiate any of the steps b, c, d, or e since it has been held that

- making operations separable or independent is obvious [In re Dulberg, 289 F.2d
 522, 523, 129 USPQ 348, 349 (CCPA 1961)]
- making operations automatic via triggering is also obvious [In re Venner, 262
 F.2D 91, 95, 120 USPQ 192, 194 (CCPA 1958)].

Regarding claim 17:

Rejection of claim 16 is incorporated. Therefore, claim 17 is rejected under the same rationale as claim 16.

Regarding claim 18:

Rejection of claim 17 is incorporated. Therefore, claim 18 is rejected under the same rationale as claim 17.

Regarding claim 19:

Rejection of claim 17 is incorporated. Therefore, claim 19 is rejected under the same rationale as claim 17.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

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- Ausborn U.S. Patent Number 5,056,021 October 8, 1991
- Binnig et al; European Patent Number EP 0 962 873 A1 August 12, 1999
- Horioka U.S. Patent Number 5,355,311 October 11, 1994
- Wu U.S. Patent Number 5,845,049 December 1, 1998
- Schmidt et al; U.S. Patent Application Publication Number US 2002/0188436
- Guha et al; "Enabling Agents to Work Together"; Communications of the ACM; July 1994; Vol. 37, Iss. 7

Any inquiry concerning this communication or earlier communications from the Office should be directed to Meltin Bell whose telephone number is 703-305-0362.

This Examiner can normally be reached on Mon - Fri 7:30 am - 4:30 pm.

If attempts to reach this Examiner by telephone are unsuccessful, his supervisor, Anil Khatri, can be reached on 703-305-0282. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-3900.

MB

SUPERVISORY PATENT EXAMINER